

Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford (RL-0040)

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*L-626, 100B Export Water
Reliability Enhancements, testing
at commissioning of pumps at
182-B pumphouse*

Overview

This section addresses Project Baseline Summary (PBS) RL-0040, *Nuclear Facility Deactivation and Decommissioning (D&D), Remainder of Hanford*. There are three major components to this work scope:

- Deactivation & Decommissioning (D&D) [R. E. Wilkinson],
- Waste Sites Remediation [B. H. Ford], and
- Reliability Projects [R. G. Slocum].

NOTE: Unless otherwise noted, all information contained herein is as of the end of November 2007.

Notable Accomplishments

Central Plateau D&D

200-UW-1 U Plant Zone Waste Site Remediation

- The Record of Decision (ROD) for U-8 crib was transmitted to the Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology) per RL direction.
- Justification of the STOMP model (Volume I) and the Remove, Treat, and Disposal (RTD) Technical Basis document (Volume II) are in the RL review process.
- Initiated Desk Top Characterization of 200-UW-1 cribs.
- Initiated Treatability Test Plan (TTP) and deep vadose zone supplemental characterization Data Quality Objective (DQO).

221-U Canyon Facility

- Finalized the Remedial Design/Remedial Action Work Plan (RD/RAWP) Draft B and transmitted to RL for regulator approval. A revised Draft B redline/strikeout to further address the applicable or relevant and appropriate requirements (ARARs) related to spill response plans was resubmitted at RL's request. Discussions are underway with the regulators for CERCLA implementation and incorporation of the Surveillance and Maintenance Plan into the RD/RAWP.
- Prepared draft of the U Canyon Disposition Initiative Project Experience Summary Report.

231-Z Inventory Reduction

- Declared a potential inadequacy in the safety analysis (PISA) on the Documented Safety Analysis (DSA) inventory.
- Issued the Request for Quotation (RFQ) for the procurement of the glovebox shipping containers.
- Prepared the Statement of Work (SOW) for the Non-Destructive Assay (NDA) of the gloveboxes and high-efficiency particulate air (HEPA) filter unit.

Waste Site Remediation

- Comments on the Ecological Risk Assessment Decisional Draft received from RL.
- Completed 200-BC-1 Phase I Treatability Test Analysis and Logging.
- Sampling Analysis Plan (SAP) for 200-BC-1 electrical resistivity characterization approved by RL and EPA.
- Conducted West Lake DQO workshop with DOE (200-UR-1).
- Provided RL with a plan to respond to Ecology's comments on the 200-IS-1 WP/SAPs.

Reliability Projects

- Completed two value engineering studies:
 - Project L-631, "Restoring Reliability to the Hanford Central Plateau Water Supply."
 - Hanford Fire Department analysis of alternatives for providing emergency response needs for the Hanford Site.
- Completed renovations to the vehicle maintenance facility (273E Building).
- Awarded construction contract for Project L-638, "2266E Facility Air Quality Improvements."

FY 2008 Funds vs. Spend Forecast (\$M)

	Projected FY 2008 Funding	FY 2008 Fiscal Year Spending Forecast	Variance
RL-0040 Nuclear Facility D&D, Remainder of Hanford	\$ 87.8	\$ 80.8	\$ 7.0

Schedule/Cost Performance (\$M)

Nuclear Facility D&D, Remainder of Hanford	Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion (FY08/ CTD)
Current Period (Month)	\$5.7	\$4.6	\$5.7	-\$1.1	-19.2%	-\$1.1	-23.1%	\$72.0
Cumulative-to-Date (FY 2004-Present)	\$265.6	\$259.0	\$256.6	-\$6.6	-2.5%	\$2.4	0.9%	\$327.6

Numbers are rounded to the nearest \$0.1M.

CTD Schedule Performance (-\$6.6M/-2.5%):

The unfavorable schedule variance (SV) for the D&D Project organization (-\$1.2M) is due to:

- Delays in receiving ROD approval and related activities for the U Plant Waste Sites (200-UW-1). The regulators have proposed a revised ROD approach and the work will be replanned after a briefing with RL (-\$0.8M).
- 224T Inventory Reduction Scope is not being performed. Baseline Change Request (BCR) RL40-CP08-002 is in process that deletes this scope from the contract period baseline (-\$0.4M).

The unfavorable schedule variance for Waste Site Remediation (-\$5.4M) is due to the following:

- Delays in 200-CW-1 – SAP approval (-\$2.7M).
- Delays in 200-MW-1 – Late SAP approval, driller availability for A-Z Borehole, and delays on the Environmental Restoration Contractor (ERC) data analysis (-\$0.7M).
- CP Integration and Planning – Engineering Studies not needed/performed (-\$0.5M).
- Delays in field work across various operable units (-\$1.5M).

The SV for Reliability Projects is within established thresholds.

Schedule/Cost Performance (\$M), continued

CTD Cost Performance (+\$2.4M/+0.9%):

The favorable cost variance (CV) for D&D (+\$2.4M) is primarily due to the following factors:

- Prior year cost overruns in 200-UW-1 U Zone Waste Site Remediation (-\$4.9M) resulting from:
 - Additional direct push sampling during field investigation to determine contamination levels.
 - Greater than planned effort to resolve Feasibility Study/Planning Package (FS/PP) comments and Remedial Design SAP.
 - Delays in barrier construction without reductions in staffing levels.
 - Lateral spread of contamination at 200-W-42, resulting in more waste containers being shipped to the Environmental Restoration Disposal Facility (ERDF) than planned.
- Prior year efficiencies in Surveillance and Maintenance (S&M) staff resulting from not replacing budgeted staff, and loaned labor to higher priority projects within D&D. Also due to lower than planned corrective maintenance in prior years (+\$3.0M).
- Prior and current year variance distributions (passbacks) in Project Management and Support (\$4.3M).

The unfavorable cost variance for Waste Site Remediation (-\$0.8M) is due to the following:

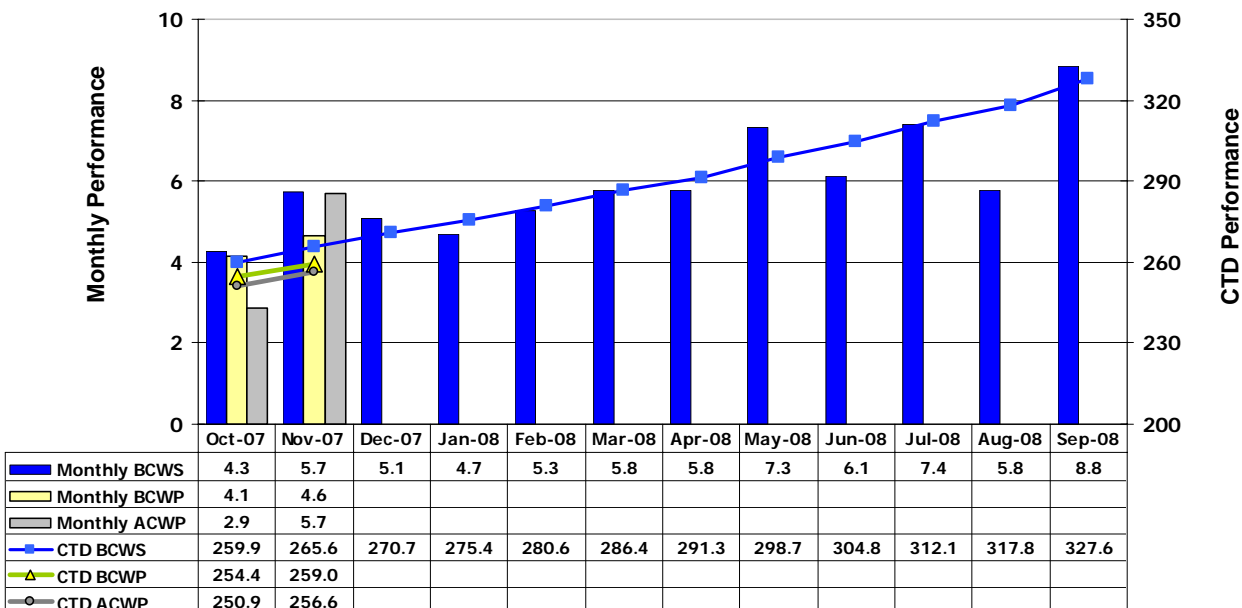
- Remedial investigation costs for 200-PW-2/4 and prior year costs for the PW-1 Z-9 slant borehole (-\$2.4M)
- Offset by significant passbacks to the project (+\$1.6M).

The favorable CV for Reliability Projects (+\$0.3M) is primarily due to the following factors:

- Increase in steel prices for prior-year facility and water projects (-\$3.2M).
- Prior year telecommunication projects technology deployment (-\$0.4M).
- Offset by favorable bids and underruns in Project L-325, *A-8 Substation*, (+\$1.5M), capital equipment procurements (+\$1.0M), road refurbishments (+\$0.7M), L-429, *12-Inch Water Line Mortar Lining Along 4th Street from Baltimore to Canton* (+\$0.5 M), and other miscellaneous (+\$0.2M).

The favorable CV for Closure Services (+\$0.5M) is within established thresholds.

Performance Analysis CTD and Monthly (\$M)



Milestone Achievement

Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones represent significant events in project execution. DOE Enforceable Agreement milestones were established to provide high-level visibility to critical deliverables and specific status on the accomplishment of these key events. The FY 2008 Enforceable Agreement milestone information provided herein is based upon the current baseline including RL-approved changes. Changes from month-to-month in both the total number of milestones to be completed and in the forecast status of upcoming milestones are the result of BCRs approved during the reporting period.

Number	Title	Type	Due Date	Actual Date	Forecast Date	Status / Comments
M-015-45B CPDD-07-006	Submit Draft A Feasibility Study and Proposed Plan for the 200-PW-1/3/6 Operable Unit Group.	TPA	9/30/07	9/14/07		Complete
CPDD-07-007	Central Plateau Cleanup and Configuration Control Specification document	RL	9/30/07	9/27/07		Complete
M-13-28 CPDD-07-013	Submit a revised RI/FS Work Plan for the 200-SW-1 and 200-SW-2 OUs	RL	9/30/07	9/13/07		Complete
CPDD-07-004	212-N nuclear facility hazard reduction and downgrade completed	RL	11/30/07	10/25/07	10/8/07	Complete
M-091-40L-016	M-91-40L.4.D Quarterly Burial Ground vent/substrate sampling results (1st Qtr 2008)	TPA	11/30/07	11/21/07		Complete
CPDD-07-008	Complete Construction of Project L-626, 100B-A Water System Enhancement	RL	12/31/07		12/17/07	Ahead of schedule
M-091-40L-017	M-91-40L.5.A Quarterly Burial Ground vent/substrate sampling results (2nd Qtr 2008)	HQ	2/29/08			On schedule
CPDD-07-0010	Complete phase one of the BC Cribs and Trenches Treatability Test Plan	RL	3/30/08			On schedule
CPDD-08-001	241-U-361 Settling Tank Characterization and Sampling completed	RL	3/31/08		2/29/08	Ahead of schedule
M-091-40L-018	M-91-40L.5.B Quarterly Burial Ground vent/substrate sampling results (3rd Qtr 2008)	HQ	5/30/08		5/30/08	On schedule
CPDD-08-004	Complete phase 2a of the BC Cribs and Trenches Treatability Test Plan	RL	7/31/08		7/31/08	On schedule
M-091-40L-019	M-91-40L.5.C Quarterly Burial Ground vent/substrate sampling results (4th Qtr 2008)	HQ	8/29/08		8/29/08	On schedule
RL40.2c CPDD-08-003	Complete characterization of potential contamination plume in the BC Cribs and Trenches	RL	8/30/08		8/30/08	On schedule
CPDD-08-006	Complete 231Z nuclear facility hazard reduction	RL	9/30/08		3/24/08	Ahead of schedule